

WHAT IS CLAIMED IS:

1           1.     A circuit board assembly comprising:  
2                     a circuit board;  
3                     an electronic component;  
4                     a plurality of incremental detents coupled to one of the circuit  
5 board and electronic component and retained relative to said one of the circuit  
6 board and electronic component against linear movement in both directions  
7 along a first axis; and  
8                     at least one projection coupled to the other of the circuit board and  
9 the electronic component and retained against linear movement along the first  
10 axis, wherein the at least one projection is received within at least one of the  
11 plurality of detents to retain the electronic component relative to the circuit  
12 board against linear movement in both directions along the first axis.

1           2.     The circuit board assembly of Claim 1, wherein the first plurality of  
2 incremental detents is provided by a first threaded portion and wherein the at  
3 least one first projection is provided by a second threaded portion screwed to  
4 the first threaded portion.

1           3.     The circuit board assembly of Claim 2 including a first intermediate  
2 structure having the first threaded portion and rotatably coupled to said one of  
3 the circuit board assembly and the electronic component while retained against  
4 linear movement in both directions along the first axis.

1           4.     The circuit board assembly of Claim 3 including a third threaded  
2 portion coupled to said one of the circuit board assembly and the electronic  
3 component against linear movement in both directions along the first axis,  
4 wherein the third threaded portion is screwed to the first threaded portion to  
5 retain the first intermediate structure and the first threaded portion against linear  
6 movement in both directions along the first axis.

1           5.     The circuit board assembly of Claim 4, wherein the third threaded  
2     portion is releasably coupled to said one of the circuit board assembly and the  
3     electronic component.

1           6.     The circuit board assembly of Claim 4 including:  
2                 a second intermediate member extending along a second axis and  
3     including a fourth threaded portion;  
4                 a fifth threaded portion coupled to one of the circuit board  
5     assembly and the electronic component and retained against linear movement in  
6     both directions along the second axis, the fifth threaded portion being screwed  
7     to the fourth threaded portion; and  
8                 a sixth threaded portion coupled to the other of the circuit board  
9     assembly and the electronic component and retained against linear movement in  
10    both directions along the second axis, the sixth threaded portion being screwed  
11    to the fourth threaded portion.

1           7.     The circuit board assembly of Claim 6, wherein the fifth threaded  
2     portion is releasably coupled to said one of the circuit board assembly and the  
3     electronic component.

1           8.     The circuit board assembly of Claim 4 including:  
2                 a processor assembly;  
3                 a heat sink coupled to the processor assembly; and  
4                 a first connector portion coupled to the processor assembly,  
5     wherein the circuit board assembly further includes a second connector portion  
6     coupled to the circuit board assembly and releasably connected to the first  
7     connector portion.

1           9.     The circuit board assembly of Claim 8 including a power supply  
2     configured to supply power to the processor assembly and having a mass  
3     cantilevered relative to the circuit board, wherein the first threaded portion, the

4 second portion and the third threaded portion cooperate to support the  
5 cantilevered mass relative to the circuit board.

1 10. The circuit board assembly of Claim 8, wherein the first connector  
2 portion includes one of a plurality of pins and wherein the second connector  
3 portion includes the other of a plurality of sockets removably receiving the  
4 plurality of pins.

1 11. The circuit board assembly of Claim 8, wherein the third threaded  
2 portion is coupled to the heat sink.

1 12. The circuit board assembly of Claim 11, wherein the heat sink  
2 includes a post incorporating the third threaded portion.

1 13. The circuit board assembly of Claim 11 including:  
2 a second intermediate structure extending along a second axis and  
3 having a fourth threaded portion;  
4 a fifth threaded portion coupled to the heat sink and retained  
5 against linear movement in both directions along the second axis, the fifth  
6 threaded portion screwed to the fourth threaded portion; and  
7 a sixth threaded portion coupled to the circuit board assembly and  
8 retained against linear movement in both directions along the second axis, the  
9 sixth threaded portion being screwed to the fourth threaded portion.

1 14. The circuit board assembly of Claim 13, wherein the first  
2 intermediate structure and the second intermediate structure are located on a  
3 first side of the processor assembly and wherein the circuit board assembly  
4 further includes:

5 a first plurality of mounting members coupling the circuit board  
6 assembly to the heat sink on a second opposite side of the processor assembly.

1 15. The circuit board assembly of Claim 14 including a second plurality  
2 of mounting members coupling the circuit board assembly to the heat sink, the

3 second plurality of mounting members being located between the processor  
4 assembly and the first and intermediate members.

1 16. The circuit board assembly of Claim 15, wherein the first plurality  
2 of mounting members and the second plurality of mounting members load the  
3 first connector portion into connection with the second connector portion.

1 17. The circuit board assembly of Claim 4, wherein the electronic  
2 component includes a post including the third threaded portion.

1 18. The circuit board assembly of Claim 17, wherein the third threaded  
2 portion is releasably coupled to the post.

1 19. The circuit board assembly of Claim 1, wherein the electronic  
2 component includes a power supply having a mass cantilevered relative to the  
3 circuit board, wherein the plurality of incremental detents and the at least one  
4 projection cooperate to support the cantilevered mass relative to the circuit  
5 board.

1 20. An electronic component mounting unit for use with a circuit board,  
2 a first threaded portion coupled to the circuit board and an intermediate  
3 structure having a second threaded portion screwed to the first threaded portion  
4 along an axis, the unit comprising:

5 an electronic component; and

6 a third threaded portion coupled to the electronic component,  
7 wherein the third threaded portion is configured to be screwed to the second  
8 threaded portion to retain the electronic component relative to the circuit board  
9 in both directions along the axis.

1 21. The set of Claim 20, wherein the electronic component includes a  
2 heat sink.

1 22. The set of Claim 21, wherein the third threaded portion is coupled  
2 to the heat sink.

1           23. The set of Claim 22, wherein the third threaded portion is  
2 removably coupled to the heat sink.

1           24. The set of Claim 21, wherein the circuit board includes a first  
2 connector portion and wherein the electronic component includes a processor  
3 assembly coupled to the heat sink and including a second connector portion  
4 configured to connect to the first connector portion.

1           25. A computing device comprising:  
2               a baseboard;  
3               a memory coupled to the baseboard;  
4               input/output coupled to the baseboard; and  
5               a processor system coupled to the baseboard, the processor  
6 system including:  
7                   a frame;  
8                   a circuit board; and  
9                   a processor component including:  
10                       a processor assembly; and  
11                       a heat sink coupled to the processor assembly;  
12                   a plurality of incremental detents coupled to one of the  
13 processor component and the circuit board and retained against linear movement  
14 in both directions along an axis extending perpendicular from the circuit board;  
15 and  
16                   at least one projection coupled to the other of the circuit  
17 board and the electronic component and retained against linear movement in  
18 both directions along the axis, wherein the at least one projection is received  
19 within at least one of the plurality of detents to retain the electronic component  
20 relative to the circuit board against movement in both directions along the axis.

1           26. The device of Claim 25, wherein the first plurality of incremental  
2 detents comprises a first threaded portion and wherein the at least one first

3 projection comprises a second threaded portion screwed to the first threaded  
4 portion.

1 27. The device of Claim 26 including an intermediate structure having  
2 the first threaded portion and rotatably coupled to said one of the circuit board  
3 and the electronic component while being retained against linear movement in  
4 both directions along the axis.

1 28. The device of Claim 27 including a third threaded portion coupled  
2 to said one of the circuit board and the electronic component against linear  
3 movement in both directions along the axis, wherein the third threaded portion  
4 is screwed to the first threaded portion to retain the intermediate structure and  
5 the first threaded portion against linear movement in both directions along the  
6 axis.

1 29. The device of Claim 28, wherein the third threaded portion is  
2 releasably coupled to said one of the circuit board and the electronic  
3 component.

1 30. A circuit board assembly comprising:  
2 a circuit board;  
3 an electronic component; and  
4 means for adjustably positioning the electronic component relative  
5 to the circuit board in both directions along an axis and maintaining the  
6 electronic component relative to the circuit board against linear movement in  
7 both directions along the axis.

1 31. A circuit board assembly comprising:  
2 a circuit board;  
3 an electronic component;  
4 a first threaded portion coupled to the electronic component;  
5 a second threaded portion coupled to the circuit board; and

6 an intermediate structure having a third threaded portion screwed  
7 to the first threaded portion and screwed to the second threaded portion.

1 32. The assembly of Claim 31, wherein the first threaded portion  
2 comprises a first internally threaded bore, wherein the second threaded portion  
3 comprises a second internally threaded bore and wherein the third threaded  
4 portion of the intermediate structure is screwed into the first threaded bore and  
5 into the second threaded bore.

1 33. A method for mounting an electronic component to a circuit board,  
2 the method comprising:  
3 positioning at least one projection, coupled to one of the electronic  
4 component and the circuit board and retained against linear movement along an  
5 axis perpendicular to the circuit board, within at least one of a plurality of  
6 incremental detents, extending along the axis and coupled to the other of the  
7 circuit board and the electronic component and retained against linear movement  
8 in both directions along the axis.

1 34. The method of Claim 33, wherein the plurality of incremental  
2 detents are provided by a first threaded portion and wherein the at least one  
3 projection is provided by a second threaded portion and wherein the inserting  
4 step includes screwing the first threaded portion to the second threaded portion.

1 35. The method of Claim 34, wherein said one of the circuit board and  
2 the electronic component includes a third threaded portion, wherein the first  
3 portion is provided by an intermediate structure and wherein the method further  
4 includes the step of screwing the first threaded portion to the third threaded  
5 portion.

1 36. The method of Claim 33, wherein the electronic component  
2 includes a processor assembly and a heat sink coupled to the processor  
3 assembly and wherein the method further includes connecting the processor  
4 assembly to the circuit board.

1           37.    The method of Claim 36 further including securing a plurality of  
2    mounting members between the electronic component and the circuit board  
3    about the processor assembly.